



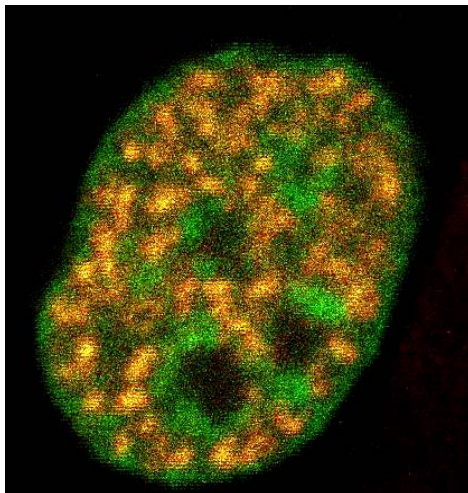
*ERC-StG2011
Consolidator Grant*

DYNACOM

From Genome Integrity to Genome Plasticity:

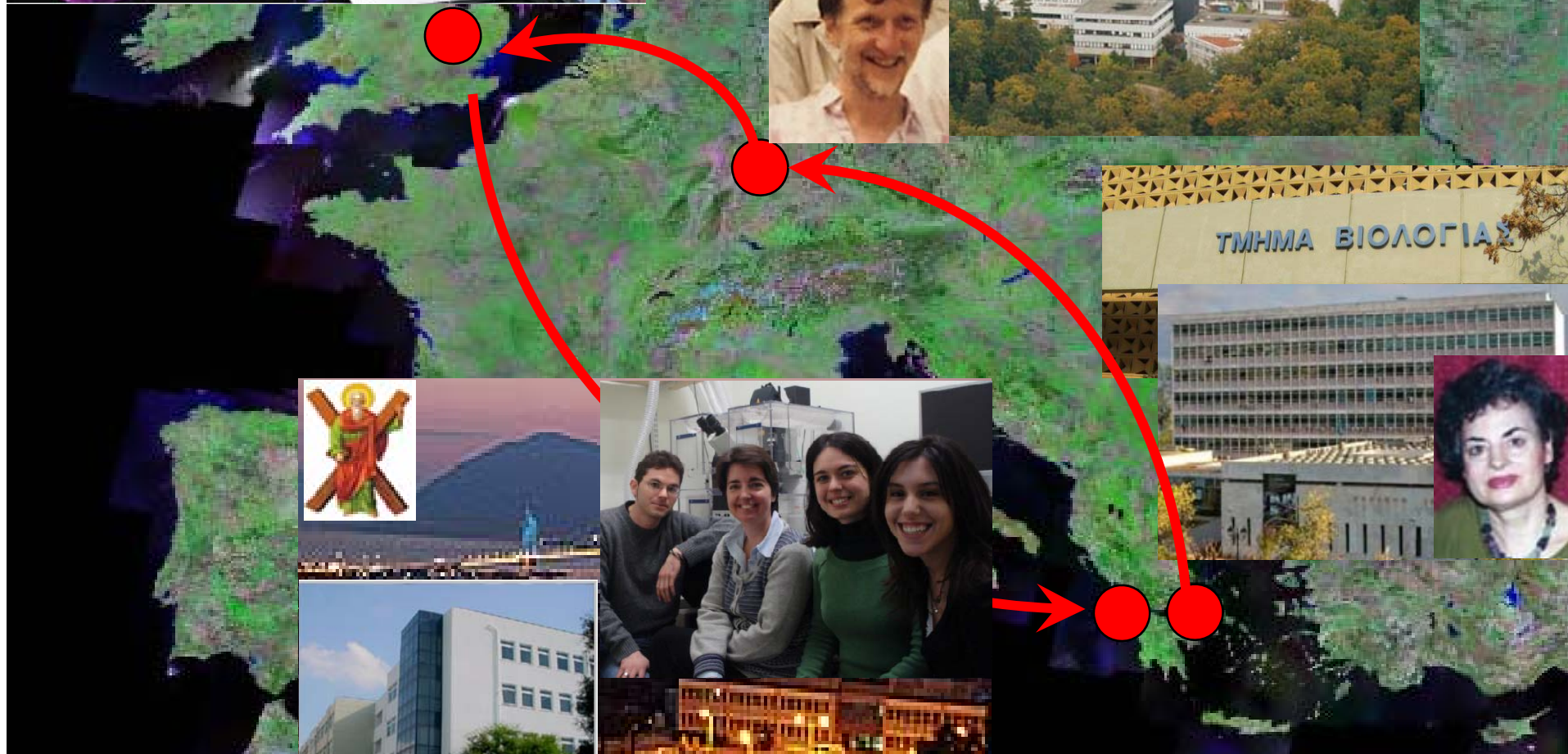
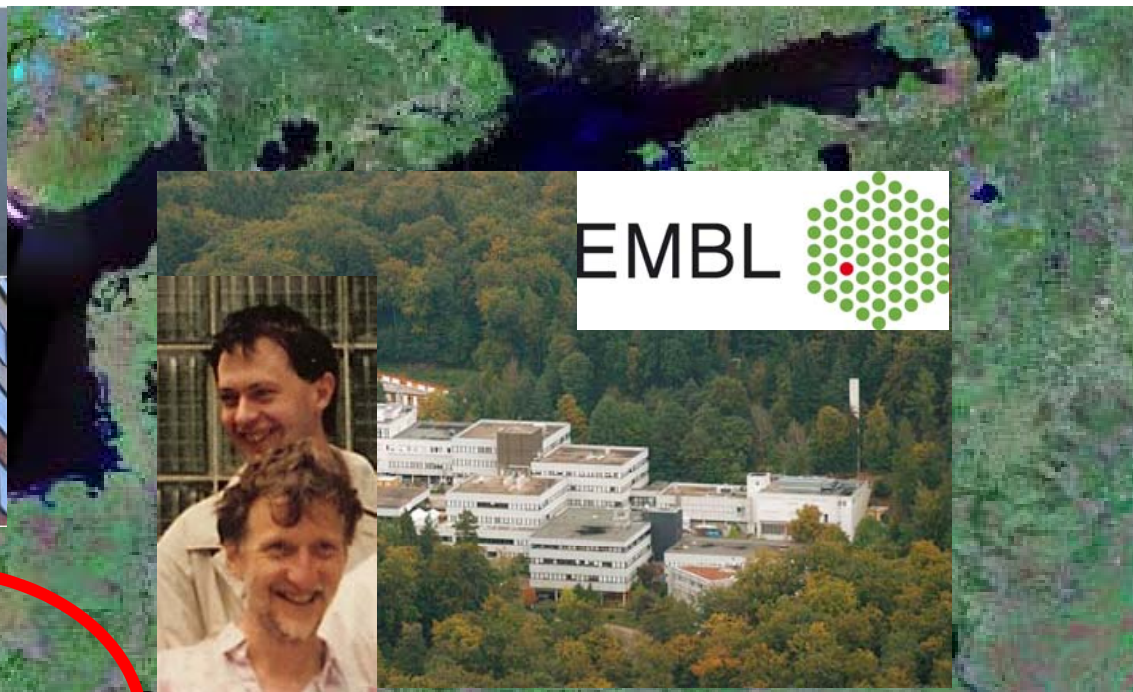
Dynamic Complexes Controlling Once per Cell Cycle Replication

Zoi Lygerou

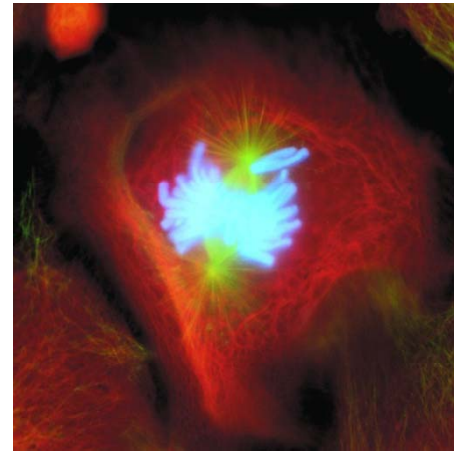
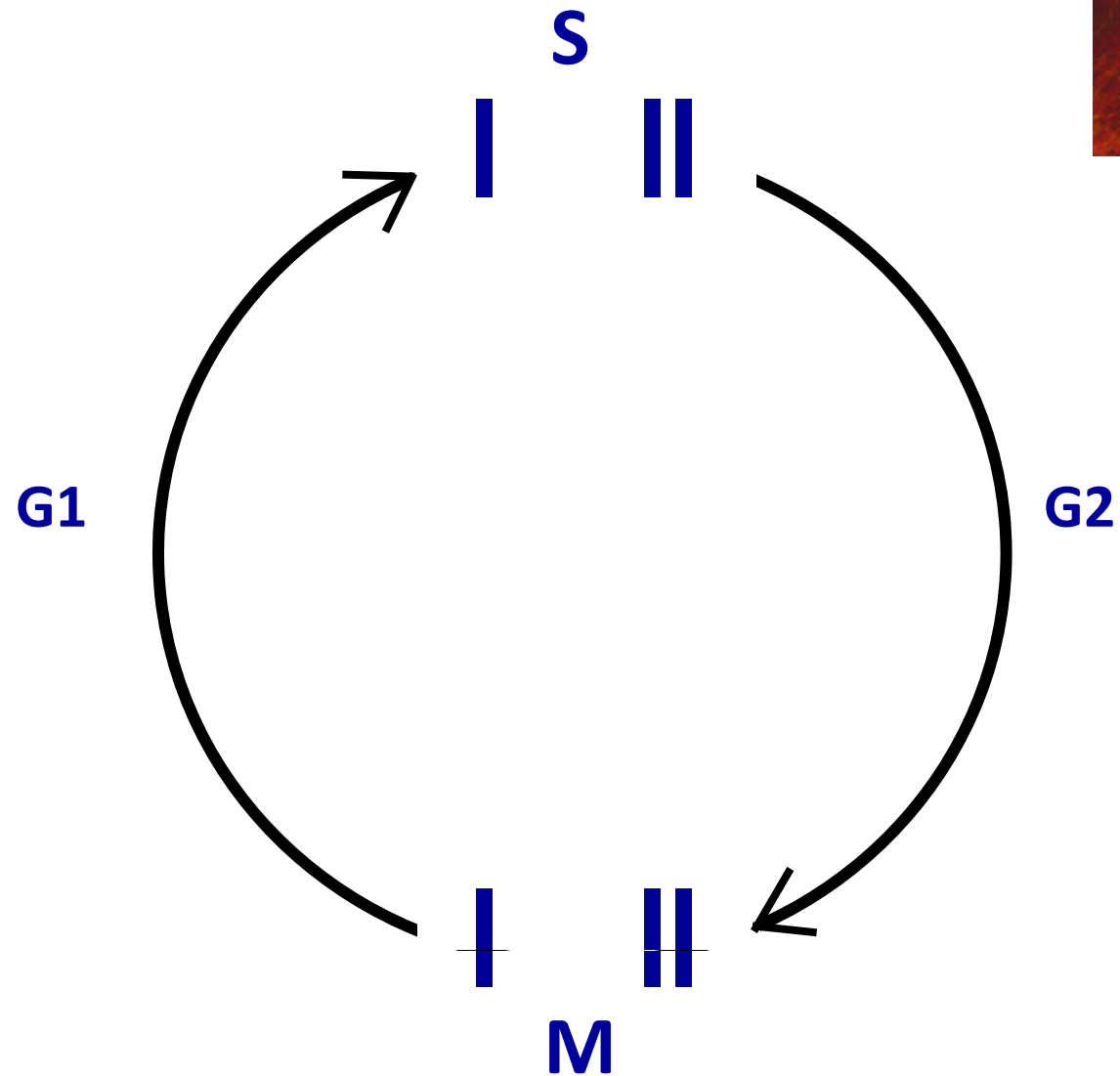


School of Medicine
Patras University
Greece





The Cell Cycle

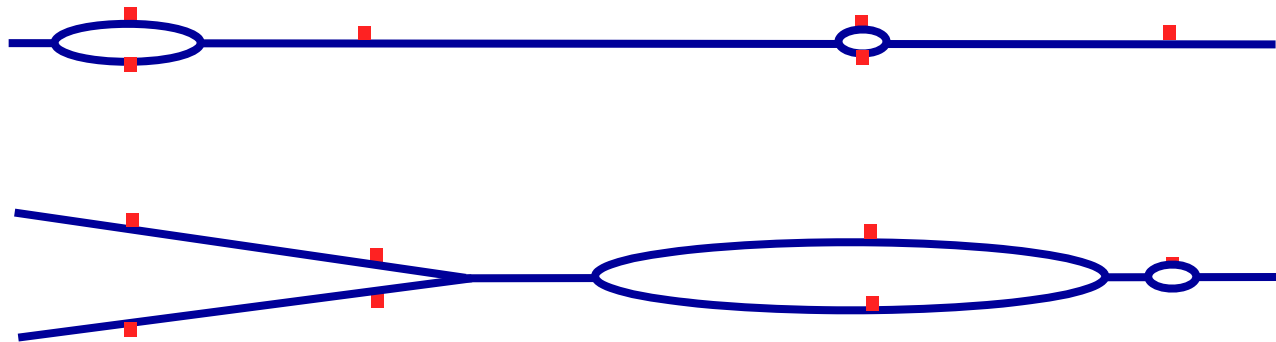


DNA Replication Dynamics are complex and uncertain

G1



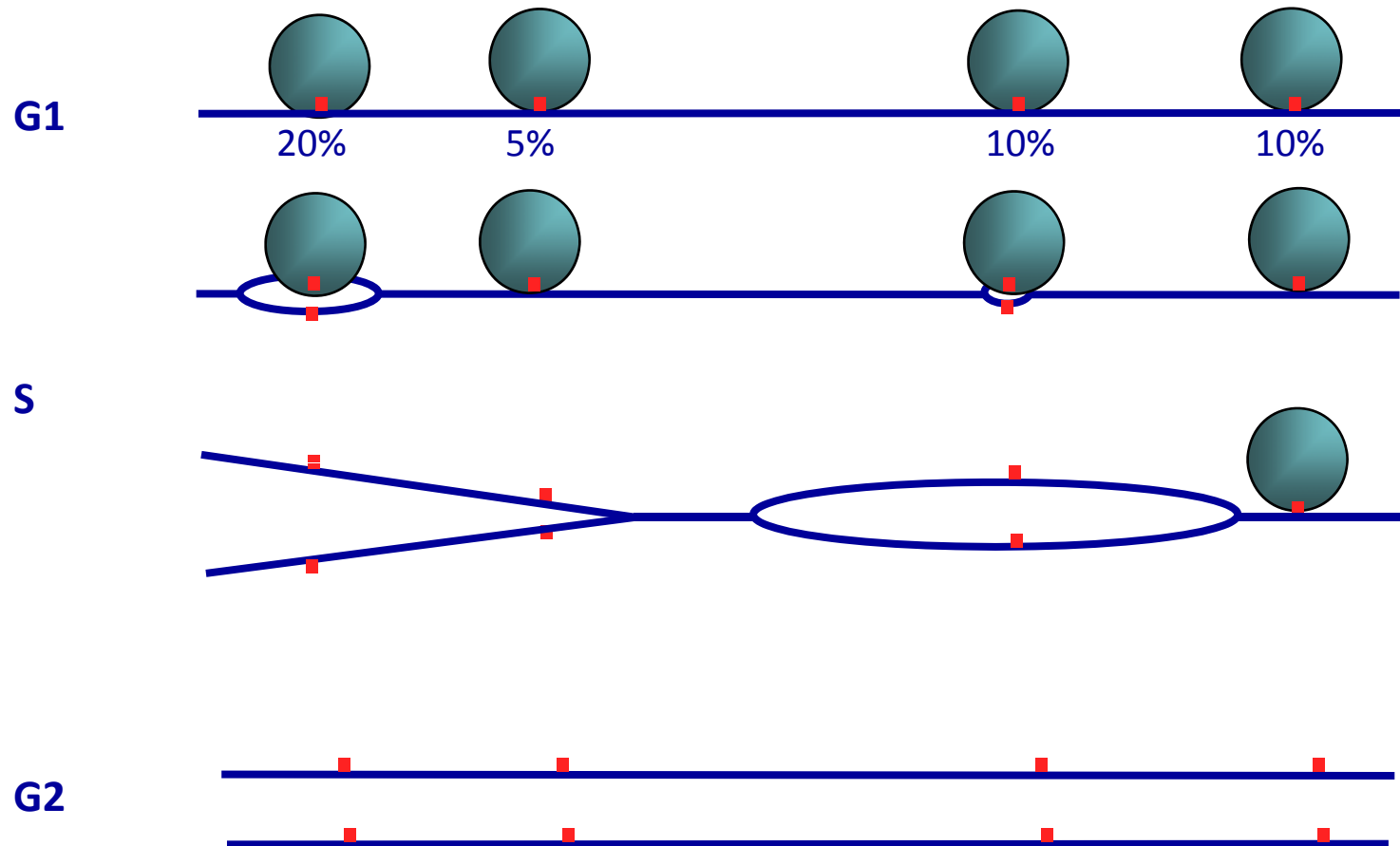
S



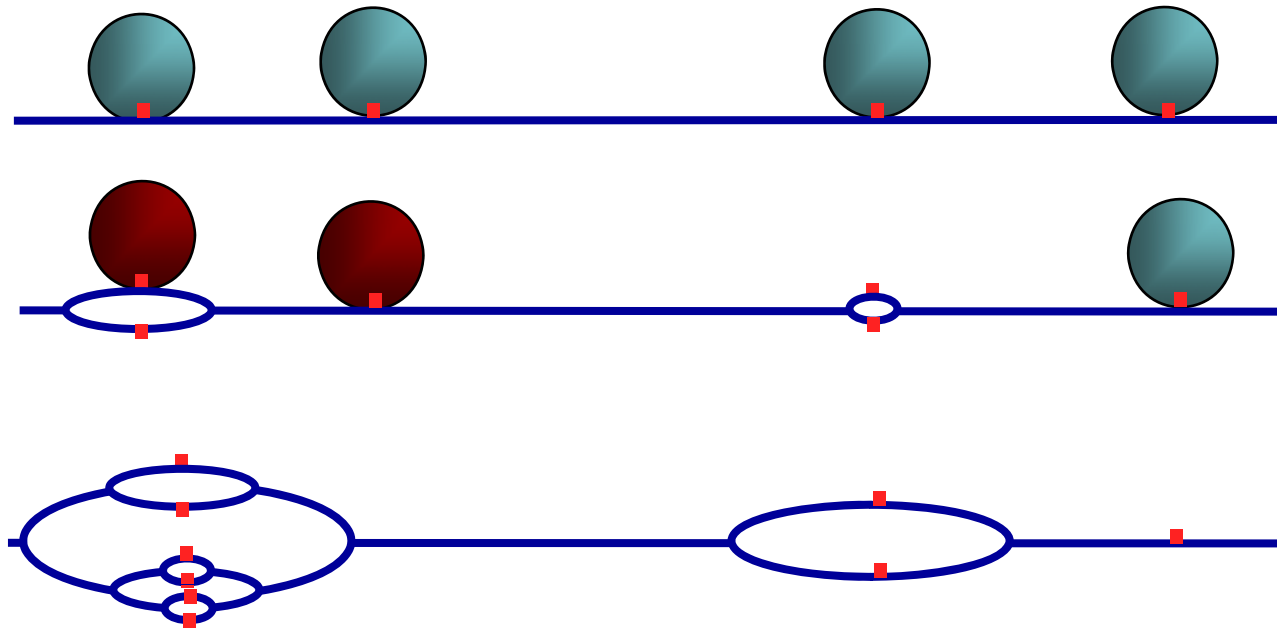
G2



Dynamic Multi-Subunit Complexes dictate when and where replication initiates



System aberrations lead to genomic instability

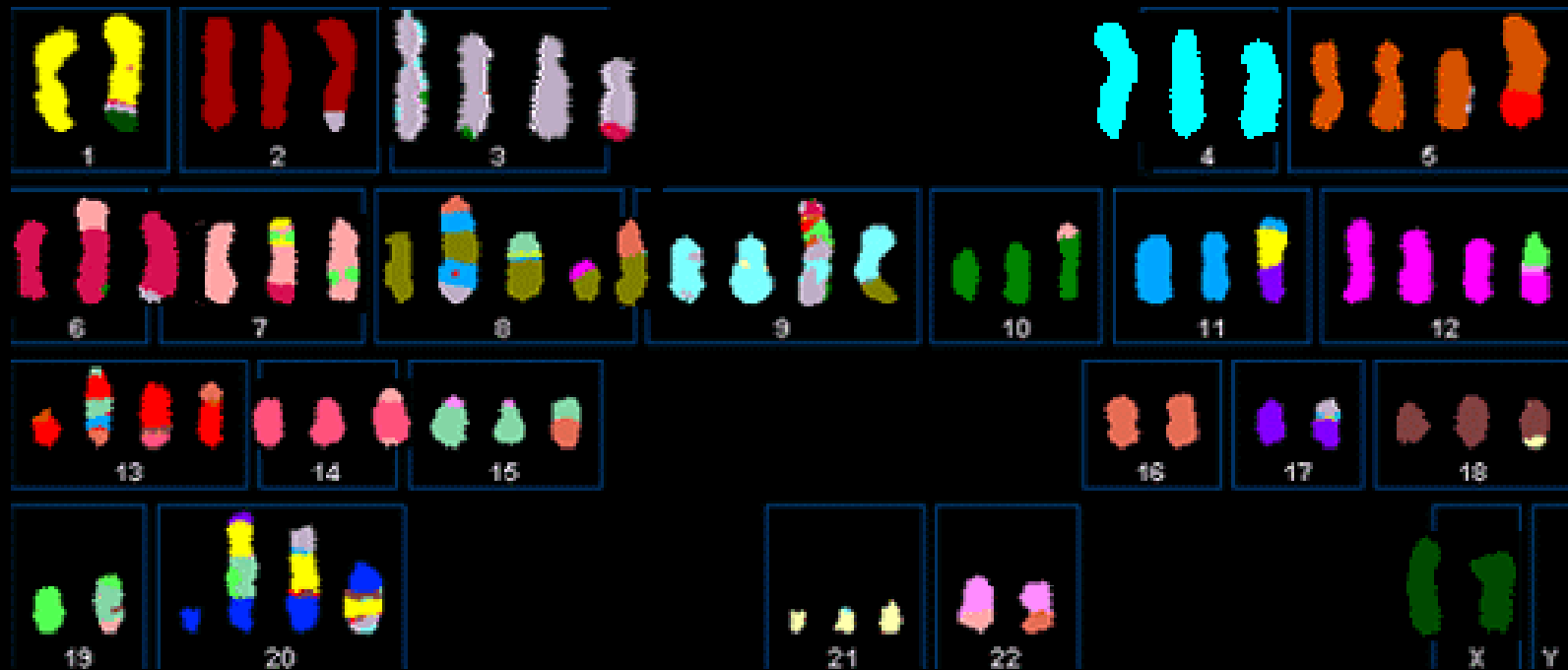


Genomic Instability



Genome Plasticity

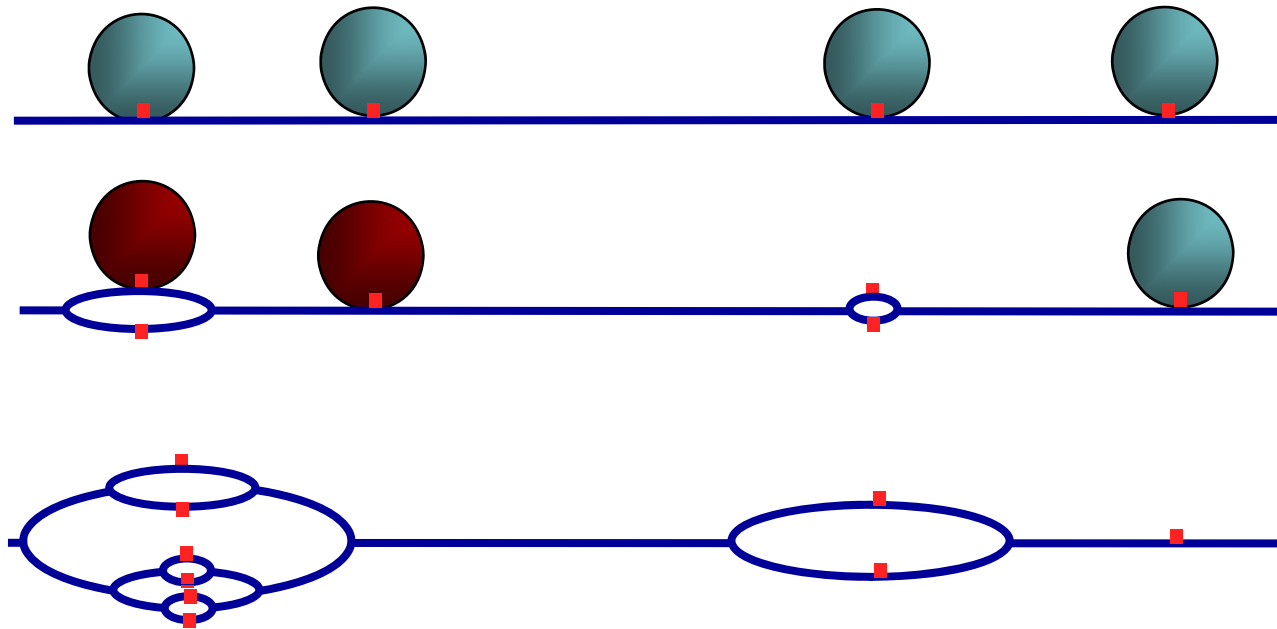
Cancer cells are genetically unstable



MCF7 Breast Cancer Cells

Cancer Genomics Program, University of Cambridge

System aberrations lead to genomic instability



Genomic Instability



Genome Plasticity

Tumorigenesis

Tumor evolution

Questions

How is genome integrity maintained?

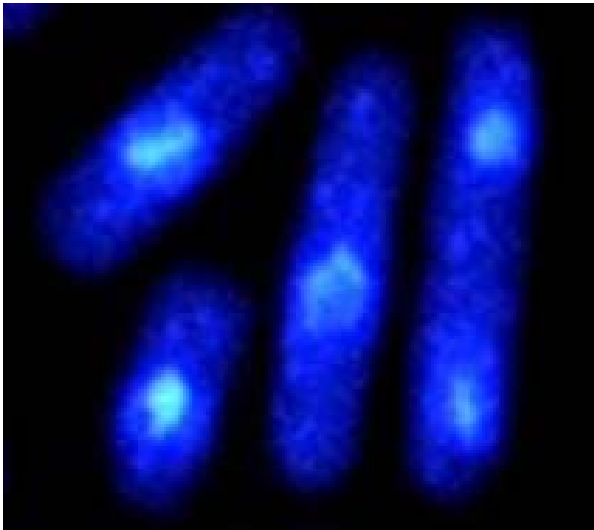
How does genome plasticity ensue?

Dynamic chromatin bound complexes

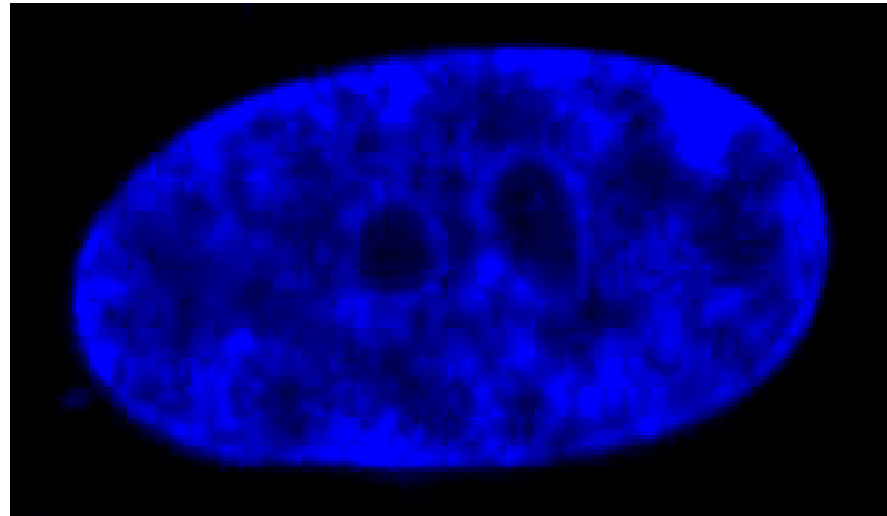
Normal conditions - System aberrations

Approaches

2 model systems



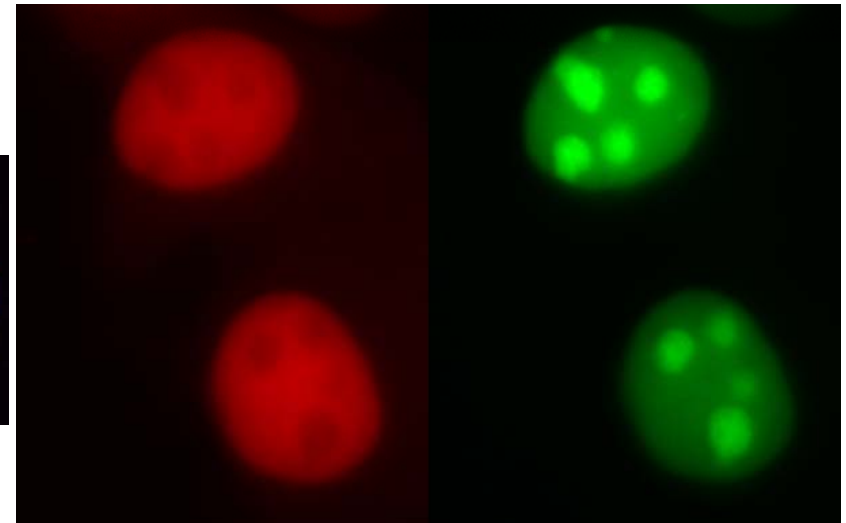
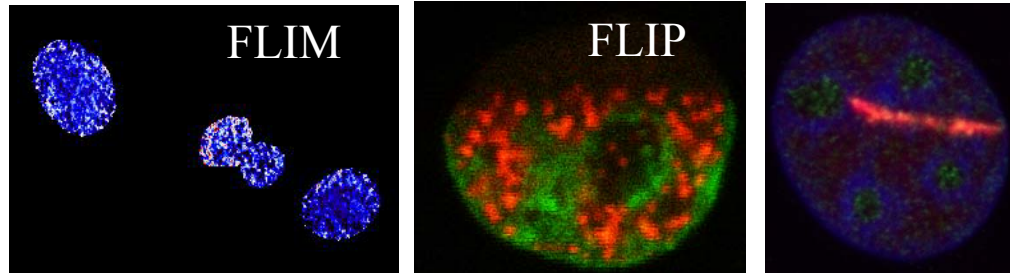
Fission yeast



Human cells

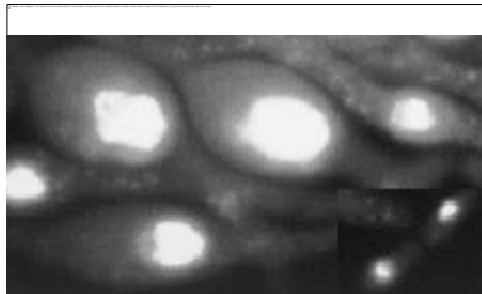
3 Complementary approaches

Functional live-cell imaging

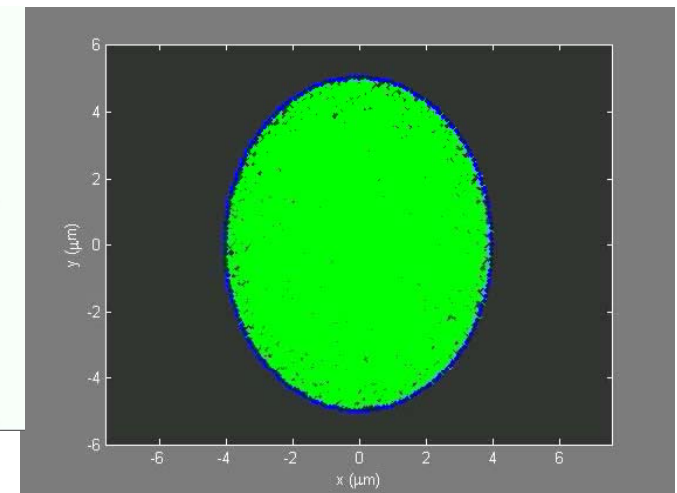
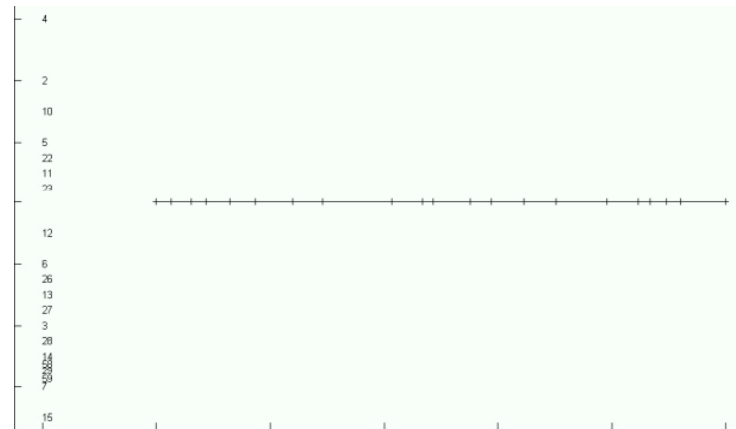


Laser Microsurgery

Genetics



Modeling



The Team

People



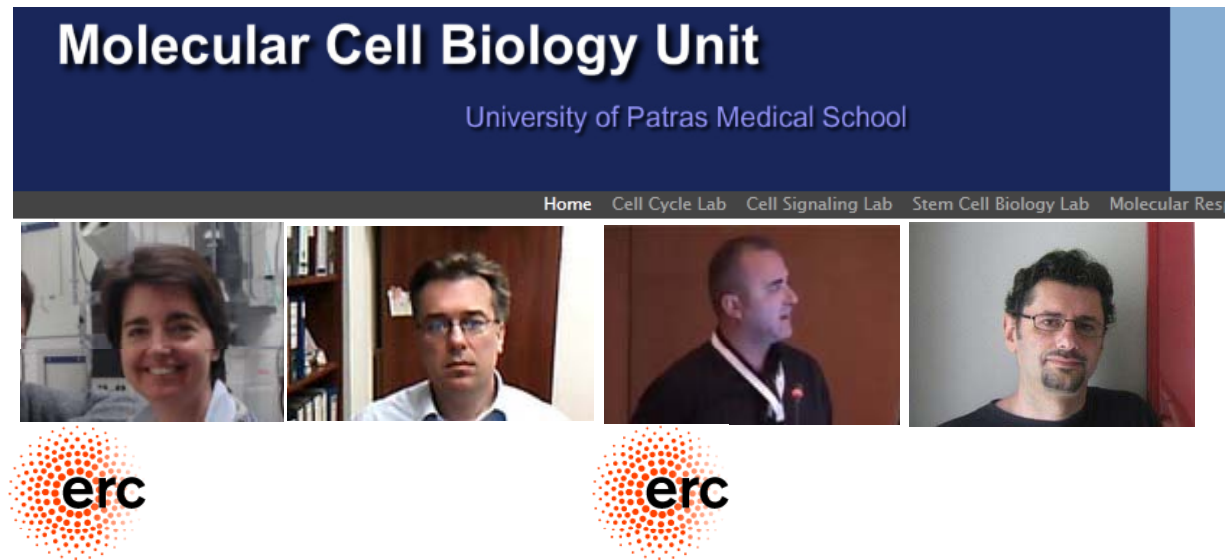
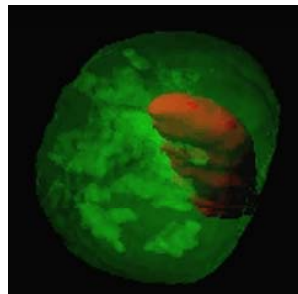
Research Environment

Laboratory of Biology
School of Medicine

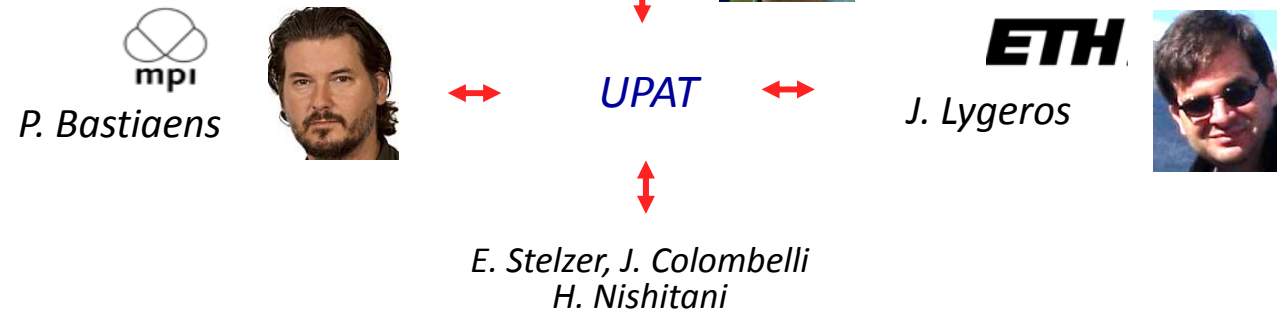
University of Patras



Infrastructure



Collaborators



The Timeline: from applying to running an ERC St-Grant

Application

single step application – two step selection

November

Interview

May

Notification

Middle July

Finalizing agreement

August-October

Start-up

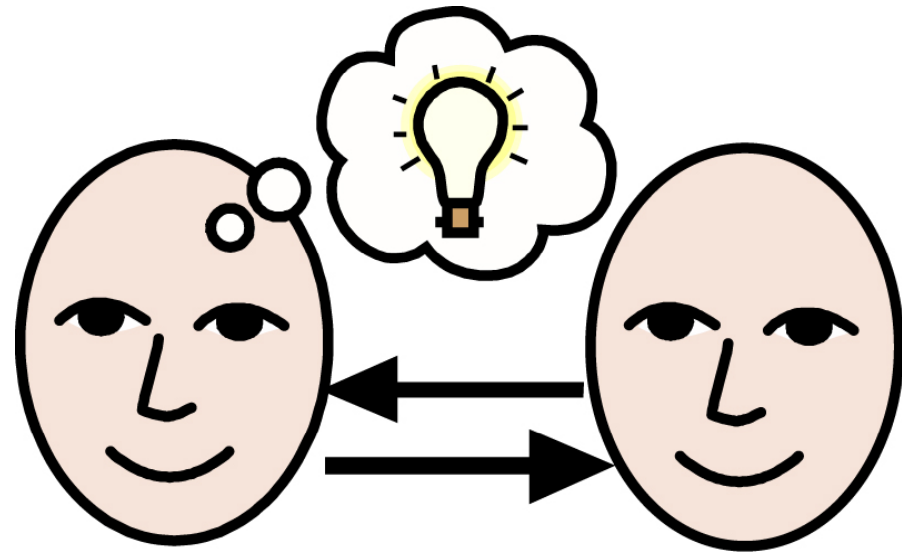
January

Scientific Report: midterm – final

Financial Report: every 18 months

Thorough Hassle-free!

A clear idea



Clearly presented

PI: clear potential



Writing the application

A Forms: check them carefully - they are binding!

choose panel well - names available online

B1: only document available to panel at 1st round

must be complete

concise

convincing (use preliminary data)

catching (use figures)

highlight strong points – address weak points – be specific

stress novelty, impact

B2: thorough, well documented, include preliminary data where possible

Budget: use allocation, include support for PI where relevant

Prepare it in good time

get opinions from colleagues (also from different fields)

submit well in advance (you can replace up to the deadline)

Excellence

In context



Καλή Επιτυχία!

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